

# Plant Industry

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The Division of Plant Industry is responsible for ensuring consumers of disease free and pest free plants, grains, seeds, as well as properly labeled agricultural commodities, and the safe application of pesticides and farm chemicals.

## Entomology

The Utah Department of Agriculture and Food currently administers nine insect and plant quarantines, which require inspection and enforcement by the State Entomologist. Effective enforcement demands cooperation with federal agencies and regulatory officials of other states and countries. Quarantines currently in effect are for European Corn Borer, Gypsy Moth, Apple Maggot, Plum Curculio, Cereal Leaf Beetle, Pine Shoot Beetle, Japanese Beetle, Mint Wilt and Karnal bunt.

During 2004, there was approximately 845 State and Federal Phytosanitary Certificates issued under the direction of the State Entomologist. These certificates allow Utah agriculture to ship plants and plant products to other states and foreign countries. The State Entomologist also responded to more than 300 public requests for professional advice and assistance. Such assistance includes insect identification, news releases, control recommendations and participation in various education meetings and workshops.

The State Entomologist administers the Utah Bee Inspection Act (Title 4, Chapter 11), the Insect Infestation Emergency Control Act, and various entomological services under authority of Title 4, Chapter 2. Major functions performed during 2004 are summarized below:

### Apple Maggot and Cherry Fruit fly

The Apple Maggot survey and detection program in Utah requires the efforts of the State Entomologist, one program supervisor, three field scouts and necessary secretarial help. The program was implemented to provide for our continued participation in export markets. In 2004 600 traps were used in the adult survey. Since the programs beginning in 1985 property owners are contacted annually on orchard spray management techniques and removal of uncared for and abandoned orchards. Tree removal during 2004 exceeded 2000 trees in abandoned orchards. No apple maggots or cherry fruit flies have been found in commercial orchards.

### Bee Inspection

The Utah Bee Inspection Act provides for inspection of all apiaries annually in order to detect and prevent the spread of infectious bee diseases. Without a thorough inspection program, highly contagious diseases could spread rapidly, resulting in serious losses to the bee industry in Utah with corresponding losses to fruit and seed crop producers who are dependant on bees

for pollination. During 2004, 13,000 colonies of bees were inspected with the incidence of disease below 2.5 percent.

### African Honey Bee

A survey and detection program for African Honey Bee has been in effect for the southern border areas of Utah since 1994. The department has put into action a survey and detection program consisting of 125 detection traps. There were no confirmed detections of AHB in Utah during 2004. Early detection supported with information and education will be a major defense mechanism against this devastating and alarming insect. Considerable education and public awareness activity has occurred since the African Honey Bee was discovered in Mesquite, Nevada in the summer of 1999. No African Honey Bees have been found in Utah to date.

### Cereal Leaf Beetle

Cereal Leaf Beetle was discovered in Morgan County in 1984. It has since been found in seventeen counties of Utah's agricultural counties, including the nine northernmost counties. Because Cereal Leaf Beetle can cause a reduction in small grain production up to 75 percent, and domestic grain markets require insect free shipments, the Utah Department of Agriculture and Food in cooperation with Utah State University conducts an annual survey and detection program for this insect. A cooperative insectary program with USU has provided beneficial parasitic wasps that prey on Cereal Leaf Beetle. These beneficial parasites have now spread to all northern Utah counties helping to reduce populations significantly. Additional cooperative investigations by Utah State University and the Utah Department of Agriculture and Food into the biology and life expectancy of Cereal Leaf Beetle in compressed hay bales may one day allow shipments of hay from infested areas of the state during certain times of the year.

### Gypsy Moth

Gypsy Moths were first found in Salt Lake City in the summer of 1988. Since that time the Utah Department of Agriculture and Food has been the lead agency in the administration of a major bio-control program that has had a 97% success rate. Moth catches have been reduced from 2,274 in 1989 to three (3) in 2004. The major benefits of this program are: Cost effectiveness, Public nuisance reduction, Forest and natural resource protection, and Watershed protection.

Eradication efforts continue to show significant progress and trapping programs will remain vigorous.

### Cricket/Grasshopper

The 2004 Fall Rangeland Insect Survey was completed the last week of August. Information from this survey indicates that we may have 769,500 acres infested with grasshoppers in 2004,

and possibly 2,868,500 acres infested with Mormon Crickets. The information from the fall 2004 survey indicates the population of both grasshoppers and Mormon Crickets may infest 3.6 million acres in 2004. Insect damages ranging upwards of 22.5 million dollars may be expected again this year. Large populations of these voracious insects in 1998, 1999, 2000, 2001, 2002, 2003 and 2004 prompted the Governors Declaration of Agricultural Disaster. Some Federal and State funds provided some relief during 2004 but there were still some private farmers, ranchers and homeowners left to use their own resources to control the infestation.

Disaster Declarations by the Governor for the past five years has focused resources administered through Plant Industry to provide relief from major infestations of Mormon Crickets (largest since 1930's) and grasshoppers. 2004 is proving to be another extremely large year again for Mormon Crickets and grasshoppers. This is the sixth year of extremely heavy populations however recourses from congress to control infestations on federal lands has increased to \$1,000,000 and legislative funding for an additional \$200,000 for control on infested state and private lands. An additional \$6.7 million dollars in the form of a grant has been awarded to Utah for control of Mormon Crickets and is available until used.

#### **European Corn Borer**

Utah has a quarantine (R68-10) in place for products that could harbor the European corn borer in order to keep this damaging insect from entering the state. A state trapping program is annually conducted in major corn producing areas for this serious pest. In 2004, 72 traps were placed in six counties, with no detections of European corn borer.

#### **Red Imported Fire Ant**

The Utah Department of Agriculture and Food is approaching the red imported fire ant concern with survey and detection trapping, quarantine enforcements, port of entry inspection and public education.

#### **West Nile Virus**

West Nile Virus was first detected in the State of Utah during the summer of 2003. This disease again appeared in Utah during the summer of 2004. Five hundred thousand dollars appropriated by the 2004 legislature for control of mosquitoes has been awarded to counties, Cooperative Mosquito Control Areas(CMCA), and mosquito abatement districts to control mosquitoes, the main vector of WNV.

West Nile Virus is a disease transmitted by mosquitoes. In Utah, two principal mosquito vectors of West Nile Virus are: 1) Culex pipiens (the house mosquito) and 2) Culex tarsalis (the marsh mosquito). The major activity period for these disease vectors is from dusk until dawn. Daytime activity is almost non existent. Birds are the natural hosts of the disease with humans and horses serving as secondary hosts. The majority of people infected with West Nile Virus never develop symptoms. However, a small percentage may develop symptoms such as fever, headache,

body aches, etc. A more serious form of the disease can occur when the virus infects the central nervous system.

#### **Fertilizer Program**

Administration of the Utah Commercial Fertilizer Act (Title 4, Chapter 13). The program regulates the registration, distribution, sale, use, and storage of fertilizer products. It regulates, and licenses fertilizer blenders and monitors the applicators that spray or apply fertilizer and take samples for analysis.

Major functions performed in this program in 2004.

Number fertilizer manufacturers/registrants	238
Number of products received and registered	2366
Number of products registered because of investigations	30
Number of fertilizers sampled, collected, and analyzed	205
Tonnage sales in Utah (7/1/2003-6/30/2004)	123,905
Number of samples that failed to meet guarantee	6
Guarantee analysis corrected	6
Number of inspection visits to establishments	585
Number of violations of the fertilizer Act	4
Number of blenders licensed	29

#### **Pesticide Product Registration Program**

##### **1. EMERGENCY USE PERMITS (Section 18).**

2000	- 2
2001	- 3
2002	- 3
2003	- 3
2004	- 4

##### **2. SPECIAL LOCAL NEEDS (SLN or 24C's). 4 SLN labels filed in 2004**

##### **3. EXPERIMENTAL USE PERMIT (EUP)**

2004	- 0
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#### **Pesticide Product Registration**

Number of pesticide manufacturers or registrants:	881
Number of pesticide products registered:	9,386
Number of new products registered as a result of investigation:	325
Number of violations of the Pesticide Act	35
Number of product registration requests by field representatives:	105

#### **Nursery Inspection Program**

Number of licenses issued to handlers of Nursery stock	625
Number of Nursery Inspections conducted	785
Number of violations of the Nursery Act	24

#### **Sudden Oak Death (SOD)**

A nationwide quarantine and survey has been implemented by USDA – APHIS due the outbreak of SOD and shipments of nursery stock to Utah and 39 other states. Quarantine actions have been taken at 28 local nurseries including sampling and testing. No positive plants have been identified in Utah to-date.

## USDA Private Pesticide Applicator Restricted Use Record Survey Program

Number private applicators records surveyed	100
Percent private applicators using RUP's products	55%
Percentage of elements recorded as required	100%
Percentage of private applicators without records	0%

### Pesticide Program

The Utah Department of Agriculture and Food administers the Utah Pesticide Control Act, which regulates the registration and use of pesticides in Utah. This Act authorizes pesticide registration requirements and the pesticide applicator certification program. The UDAF is the lead state agency for pesticide use enforcement under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The UDAF administers sections of FIFRA under which programs are developed and implemented by cooperative grant agreements with the Environmental Protection Agency (EPA). These programs include the Worker Protection Program, Endangered Species Program, Ground Water/Pesticide Protection Program, Certification Program, and Pesticide Enforcement.

### Worker Protection Program

This program provides general training, worker and handler pesticide safety training, "train the trainer" program, training verification, outreach and communication efforts, reporting and tracking, and performance review actions. The UDAF has adopted the national Worker Protection Standards (WPS) Verification Program and distributes WPS Worker and Handler Verification cards to qualified WPS trainers and does WPS training as necessary.

### Endangered Species Pesticide Program

Utah has developed an Endangered Species Pesticide Plan. This plan allows the state to provide protection for federally listed species from pesticide exposure while tailoring program requirements to local conditions and the needs of pesticide users. Utah's plan focuses on the use of pesticides as they relate to the protection of threatened and endangered species on private agricultural land and lands owned and managed by state agencies. The UDAF is the lead state authority responsible for administering the plan. Through an interagency review committee, special use permits or landowner agreements can be established to allow for the continued use of certain restricted pesticides for those locations that contain threatened and endangered species.

### Ground Water/Pesticide Protection Program

The EPA is working with the UDAF to establish a Ground Water State Management Plan as a new regulatory mechanism under FIFRA to prevent pesticide contamination of the nation's ground water resources. The Utah Ground Water/Pesticide State Management Plan is a state program that has been developed through cooperative efforts of the UDAF with various federal, state, and local resource agencies. The plan includes an assessment of risks posed to the state's ground water by a pesticide and a description of specific actions the state will take to protect ground water resources from potentially harmful effects of pesticides.

## Certification Program

The UDAF has entered into a cooperative agreement with EPA to undertake the following as part of the department's Pesticide Certification program: maintaining state certification programs, state coordination with Utah State University Extension Service, state evaluation and participation in training programs, conduct certification activities, maintain records for certified pesticide applicators, and monitor certification program efforts. The department develops and prepares pesticide applicator certification manuals and examinations as part of the licensing requirements of the state.

### Pesticide Enforcement Program

The UDAF enforcement activities include the following: cancellation and suspension of pesticide products, general compliance monitoring, tracking, sample collection and analysis, enforcement response policy, ground water and endangered species pesticide enforcement activities, and FIFRA section 19 (f) enforcement actions.

Pesticide Activity	
No. of inspections of pesticides sales establishments:	36
No. of physical pesticide samples collected:	24
No. of investigations of pesticide uses:	90
No. of violations:	25
No. of pesticide applicator training sessions:	25
No. of applicators certified Commercial,	
Non-Commercial and Private:	5,045
No. of pesticide dealers licensed:	107

### Seed Inspection and Testing

Administration of the Utah Seed Act (Title 4, Chapter 16) involves the inspection and testing of seeds offered for sale in Utah. Work performed in FY 2004-2004 is summarized below:

Number of seed samples tested:	1,900
Number of violations determined:	31

### Seed Testing and Seed Law Enforcement

The seed analysts and seed laboratory technician conduct tests on seed samples submitted by agricultural inspectors, seed companies, and other interested parties. Most common tests include percent germination, purity, and presence of noxious weeds; although a number of other tests are performed upon request. Inspectors monitor the seed trade by collecting representative samples for testing and by checking for proper labeling of all seed offered for sale and for the presence of noxious weeds and other undesirable factors.

### Noxious Weed Control Program

In administering the Utah Noxious Weed Control act (Title 4, Chapter 17), the State Weed Specialist coordinates and monitors Weed Control Programs throughout the State. The thirteen agricultural field representatives located throughout the state made approximately 1,246 visits and inspections. This includes visits and or direct contact with the agencies listed below:

1. Retail Establishments
2. Weed Supervisors and other County Officials

3. State Agencies
4. Federal Agencies
5. Utility Companies
6. Private Landowners
7. Hay and Straw Certification

Number of feed samples collected and tested:

430

Number of violations:

31

### **Cooperative Weed Management**

During the past several years the Department has been working diligently with local land management agencies and the counties to encourage the development of Cooperative Weed Management Areas (CWMA's). Weed management areas are designed to bring people together; to form partnerships to control noxious or invasive weed species. The CWMA's breakdown some of the traditional barriers that have existed for many years. The County Weed Departments and the local managers of State and Federal lands, along with private land owners are now able to cooperate and collaborate on similar noxious weed issues. They can share resources and even help with weed control problems on lands that they do not administer. We now have 25 organized Cooperative Weed Management areas in Utah.

### **Control of Noxious Weeds**

1. The Division Weed Specialist coordinates weed control activities among the county weed organizations and the agricultural field representatives.
2. Surveys of serious weed infestations are conducted and control programs are developed through the county weed supervisors, county weed boards, and various landowning agencies.
3. The weed specialist and the inspectors work continually with extension and research personnel in encouraging the use of the most effective methods to control the more serious weeds.
4. Noxious Weed Free Hay Certificates.

### **Activities in Hay and Straw Certification**

Certification of hay and straw to be free from noxious weeds has become an important part of allowing these materials to be fed or utilized on public lands throughout Utah and other western states. Weed free certification is now required for all hay and straw used on public land. Plant Industry Compliance Specialists performed the following activities in connection with this program:

Inspections in 25 counties  
 Inspections for 120 producers  
 Approximately 245,220 hay bales  
 Approximately 126,447 straw bales  
 Inspected 3,335 acres for hay cubes and 650 tons of cubed hay  
 Number of Inspections: 171

### **Commercial Feed Program**

Administration of the Utah Commercial Feed Act, (Title 4, Chapter 12) involves inspection, registration, and sampling of commercial feed products. Activities performed in this program in 2004 are summarized below:

Number of feed manufacturers or registrants contacted: 654  
 Number of feed products registered: 6,830  
 Number of analysis requested of chem. Lab: 1,201

### **Grain Inspection**

The Federal Grain Inspection Service provides under authority of Title 4, Chapter 2, Section 2, and under designated authority grain inspection services. Following is a summary of work performed during the past fiscal year under dedicated credit provisions, with expenses paid by revenue received for grading services:

Number of samples tendered:

11,148

Number of miscellaneous tests conducted:

16,895

Total number of activities performed:

68,991

NOTE: Volume of work is influenced each year by a number of factors, among which are weather conditions, governmental crop programs, and marketing situations.



The Utah Department of Agriculture and Food is emphasizing noxious weed control. These invasive plant species can do considerable damage to livestock and wildlife rangeland by crowding out productive plants and grasses.